

Research on the Construction of Higher Vocational Smart Campus under the Background of Big Data

Guo Hao

Tianjin Maritime College

Author's Introduction: August 1983, Male, Tianjin, Modern Education Technology Center, Lecturer, Master, Software Engineering

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Abstract: In recent years, big data technology has matured, providing new ideas for the construction of high-tech smart campuses, but also put forward higher requirements. Facing the new development situation, the development of higher vocational colleges must fully consider the development of the times and the actual development of colleges and universities, and strengthen the promotion of smart campus construction projects. In this development background, the author briefly discusses the problems existing in the current high-tech campus construction, and believes that the construction of high-tech smart campus is also affected by multiple factors such as hardware and software, professional and technical personnel, and lack of understanding of the smart campus. Impede the construction and realization of smart campus. How to solve these problems in the construction of smart campus has become a top priority for the development of higher vocational education.

The informatization construction of higher vocational education has been developed in China for a long time. Initially, it only focused on the construction of campus network, CAI courseware and decentralized independent management information system, and has not been further developed. However, in recent years, big data technology, cloud computing, the Internet of Things and various new types of information technology have emerged, bringing new development ideas and directions for the construction of higher vocational information. Facing the rapid development situation, the smart campus has obviously become an important way and urgent need for higher vocational colleges to achieve sustainable development. Therefore, the research on the construction of higher vocational wisdom campus plays an important practical significance for the development of higher education in China and the realization of the goal of higher vocational information construction and the improvement of the efficiency of education and teaching.

Current Situation and Existing Problems of High-Tech Campus Construction under the Background of Big Data.

Under the background of the rapid development of "Internet +", the concept of building a smart campus was gradually put forward, and a new direction and ideas were pointed out for the teaching and management of higher vocational education. The integration of big data technology and smart campus breaks through the traditional application mode, promotes the intelligent and modern development of higher vocational teaching and management, and creates a smart teaching environment for teachers and students. At the same time, Smart Campus has realized a systematic platform integrating management information, sharing teaching resources and information interaction and communication, and also includes advanced management functions such as access control, campus card and mobile terminal. However, there are still some shortcomings in the current high-tech campus construction process:

Data Resources are Not Unified and Resource Sharing Cannot be Achieved.

All data resources in higher vocational colleges should be regarded as a unified whole, that is, there is an exit and entrance to ensure the effective management and sharing of data resources. However, in many higher vocational colleges, there will be problems of different standards. Each department has its own system platform. It is difficult to realize the sharing of different data

resources, and the information exchange between different departments is not smooth. low efficiency. Moreover, in the data collection, report filling and other links, there will be data inconsistency, increasing the difficulty of the data auditor's work.

Software and Hardware Applications have Become the Weak Link in the Construction of Smart Campus.

At present, there are still some higher vocational colleges smart campus construction is still in a relatively backward stage, and mainly based on wired network operation, and has not achieved comprehensive coverage of wireless WIFI [1]. In addition, the funds for the construction of smart campuses in various higher vocational schools are effective, it is difficult to meet the needs of the cluster construction of data platforms and business systems in the campus, and the network architecture design and network security still need to be improved. In terms of software, it is also a relatively weak link, which affects the promotion of informationization in higher vocational schools. For example, the lag of mobile application platform system construction has become an important obstacle in the construction of smart campus.

Lack of Professional and Technical Personnel.

In addition to professional companies to develop on behalf of high-tech building smart campuses, it is necessary to set up a team of professional and technical personnel, and can hire professional technicians or train faculty and staff. In addition, in addition to participating in the process of building a smart campus, technicians are required to perform maintenance, overhaul and upgrade of smart campus hardware and software facilities, etc., to solve problems for the teaching staff. However, in the current higher vocational colleges, because the construction of smart campus is not mature, the professional and technical personnel are relatively short, and the leaders have not attached great importance to this. The necessary conditions such as funding cannot meet the requirements. How to train a group of professionals to master The team of software and hardware technology and theoretical knowledge has become an urgent problem to be overcome in the construction of smart campus.

The Use of Smart Campus Platforms is Low.

Higher vocational colleges will also be influenced by traditional education models and ideas in the process of building a smart campus. Because building a smart campus requires a lot of time and effort. In this process, it is necessary to continuously optimize and improve the defects of the traditional education model, thereby reducing the negative impact of traditional educational thoughts on building a smart campus. In recent years, many higher vocational colleges have invested a large amount of money in the construction of smart campuses and established relevant platforms. From the actual results, the coverage of smart campus is relatively wide, but the high-level employment is too much emphasis on construction. There are still many shortcomings in the use of smart campus. The low utilization rate leads to the construction of smart campus, and it does not reflect the wisdom of the campus. The important role played by work and teaching. These problems have largely hindered the construction and application of the smart campus platform system. Even for individual higher vocational colleges, the smart campus construction is only blindly following the trend, and the waste of resources is serious.

Based on the Background of Big Data, Smart Campus Construction Countermeasures

At this stage, China's big data technology level has been continuously improved, providing technical support for the construction of smart campus [2]. Therefore, higher vocational colleges should start from the current actual needs and combine the future development goals to build a smart campus, so that the functions of the smart campus can be fully utilized.

Integration of Various Systems to Achieve Efficient Sharing of Resources

In the construction of high-skilled smart campuses, smart campuses should not be built as a single platform, but all systems should be integrated, unified scheduling and control. In each system integration platform, it has very powerful functions, such as connecting the sub-platforms such as the educational system, the financial system, and the access control system with the main platform, which can realize the sharing of data resources and improve the utilization of resources. At the same

time, each system integration platform also needs to achieve standardization, modularity and openness. Specifically, the first is standardization, including software and network standardization, which is to select the corresponding technology according to the information integration platform construction requirements, so as to achieve the desired goal; secondly, modularization, is to set different functional modules according to the use requirements in the platform, and Different modules are independent and seamlessly connected to each other; finally, the open features enable distributed control of subsystems in the platform, improve the efficiency of supervision, and better meet the platform mobility and maintainability. Sex, and compatibility and many other needs. Therefore, the integration of each system truly realizes the intelligent real-time monitoring of local and remote information, and also ensures the effective sharing of various data resources in higher vocational colleges, greatly improving the processing efficiency of responding to emergencies.

Do a Good Job in Upgrading the Basic Software and Hardware of the Smart Campus.

In the construction of high-skilled smart campus, the hardware configuration is disorderly, and the lack of scientific and unified standards will also bring trouble to the management work. For hardware and software problems, we should first integrate hardware devices, that is, use cloud technology to effectively integrate the file system layer, virtualization layer, database management layer, user application and development layer resources to achieve standardized management [3]; secondly, plus The upgrade of the basic core equipment of the campus network, through optimizing and transforming the wired and wireless networks in the campus, improving the network access rate, gradually improving the quality of the campus network, and laying the network foundation for the construction and implementation of the smart campus. At the same time, on the basis of high-speed operation of the network, people's requirements for safety equipment are also constantly improved. It is necessary to strengthen the deployment of multi-level security protection equipment and unified management platform to ensure network security. In addition, efforts should be made to improve the sharing efficiency of software and hardware resources and the efficiency of equipment use, and provide a basic guarantee for higher vocational teaching activities and management.

Pay Attention to Improving the Theoretical Knowledge, Professional Skills and Information Level of Professional and Technical Personnel.

In the face of the continuous advancement of high-tech campus construction, higher vocational education must accelerate the improvement of the management mechanism, change the traditional complex and inefficient work mode, and enable the real ability of professional and technical personnel to play a role in ensuring the realization of smart campus construction projects. Therefore, the urgent task of higher vocational colleges should be to strengthen the professional technical team, regularly or targeted professional training for technical personnel and solve the problems encountered in the construction of smart campus, and continuously promote the construction of smart campus.

Improve the Application Efficiency of the Smart Campus Platform.

At present, in some high-level vocational schools, there are still misunderstandings about the construction of smart campuses, which leads to the low efficiency of platform application, and its effect can be imagined. Therefore, to promote the construction of smart campus, we should first strengthen the propaganda work, so that faculty and staff can fully understand the importance and advantages of the smart campus. In this way, after the construction of the smart campus, modern educational technology can be transformed into a fast and convenient practical tool in teaching activities and management work, in order to reduce the occurrence of smart campus construction in the form of expression, waste of resources, etc., thus embodying the important functions of the smart campus. Come out and promote the continuous improvement of the information level of higher vocational education. In addition, for the individualized needs of different departments in higher vocational colleges, it is possible to clarify the key points of the platform and conduct targeted training. For example, there is a problem in the use of the card. For these problems, a special week can be specially arranged to arrange special personnel to explain the problem to the students at the entrance of the school cafeteria. If it is a teaching resource platform problem, you can explain the problem to the class teacher during the noon break period. Therefore, in the use of

smart campus platform, it is inevitable to encounter problems, but these problems can be solved and overcome in an effective way, thereby improving the application efficiency of the smart campus platform and exerting its functions.

Conclusion

In summary, in the face of the continuous development of information technology, higher vocational colleges must strengthen the construction of smart campus, make full use of the advantages of advanced information technology such as big data, build an information management platform, and realize the intelligentization of higher vocational education and management. Management, break through the traditional teaching management model and achieve innovative development. At the same time, we actively introduce talents with professional skills, and provide important talents and technical support for the construction of smart campuses and various functions. Only in this way can higher vocational colleges better adapt to the current era and achieve more long-term development.

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